THE ENGINEER

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EDITOR'S NOTE: This is one of a series of articles written in a contest sponsored by Eta Kappa Nu, honorary electrical engineering fraternity.

If it were not for the engineer, where would civilization be today?

No definite answer can be given to this question, but it is a certainty that were there no engineering developments, civilization would not be advanced to its present state.

At present, the majority of the world is almost entirely dependent upon the engineer. Population has become more and more concentrated in the cities. This has been caused by the increase in manufacturing, due to the inventions and developments of the engineer.

Manufacturing is but one of the advancements of civilization. Agriculture has been greatly aided by the development of labor-saving farm implements, by methods of providing irrigation in dry territories, and by providing means for transporting the products of the farm to the cities.

Should any single branch of engineering be entirely eliminated, immediate disaster would follow. If we should eliminate the mechanical engineer, we would no longer have the advantages of labor saving machinery. Transportation facilities as we have them today could not exist. In order that prosperity should exist, the mechanical engineer becomes a necessity.

Similarly, the electrical engineer is responsible for our modern methods of transporting power, and our methods of heating and lighting. Our valuable methods of communication; the telegraph, the telephone and the radio, are all his work. Without him, these things upon which the people of today depend, could not continue to exist.

The civil engineer has built our roads and railways, canals, dams, irrigation systems, and our bridges. Without these, the machinery of the mechanical engineer would be of little value. Standards of today could no longer continue.

Without the mining engineer, we could no longer produce our minerals, which are needed for practically all our machinery. Our fuels would not be available for power, and education could not advance, as most of our necessities would no longer exist. Life would necessarily have to be very primitive.

The chemical engineer has often been considered as one who has produced things for the destruction of life, such as poison gases and explosives, for use in warfare. These have not been the things of greatest importance that the chemical engineer has provided. To him can be given the credit of finding synthetic processes of producing needed materials, the elimination of waste by the production of many by-products, and, by analysis, the production of materials of definite quality. These things are all of vital importance to civilization.

The work of the engineer is not generally appreciated. Usually the praise for an engineering achievement is given to the promoter of the project, while the engineer who has made the achievement possible goes on unnoticed.

The engineering field is very broad. The few branches of engineering mentioned here could be subdivided into many specialized branches. It is

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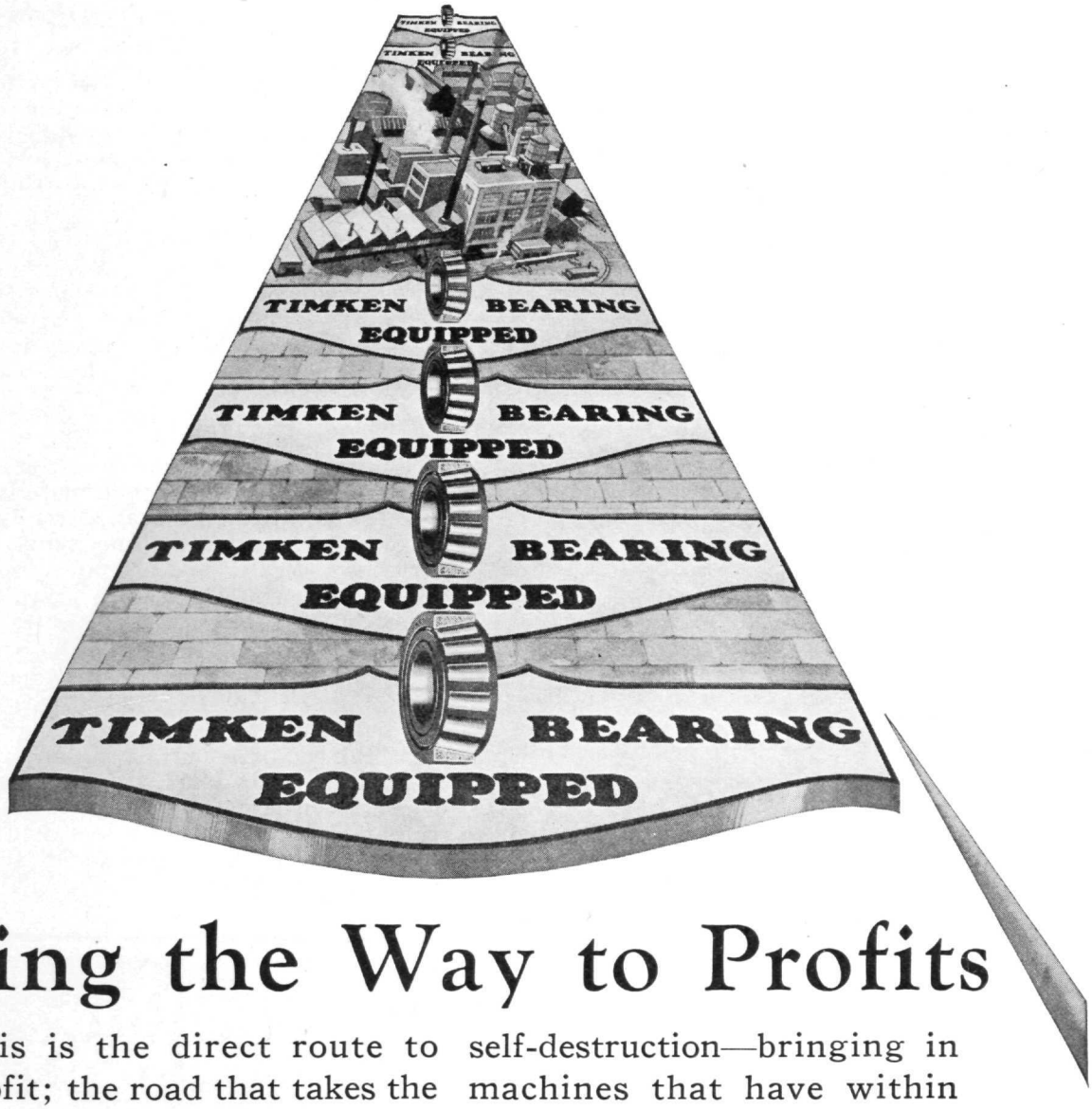
essential that each branch of engineering cooperate with each and every other branch, as each is dependent on the other for its development.

As a single unit, engineering has caused civilization to develop to its present state, and will continue to advance civilization to higher levels. Without engineering, modern civilization could not be.



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